Amendment to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of classifying Internet Protocol (IP) data to be sent from a source apparatus to a destination apparatus in a packet switched network, said method comprising:

receiving said data at a first node, the data comprising a header comprising a list of at least one intermediate node to be visited on a way to the destination apparatus; and

classifying said data at said first node based on ~~source routing information of said data contained in a routing header~~an entry in said header.

2. (Currently Amended) The method of claim 1, wherein said ~~source routing information~~entry is provided within said ~~routing~~header of said data for IPv6.

3. (Currently Amended) The method of claim 2, wherein said classifying is based on a destination address provided within said ~~routing~~header.

4. (Currently Amended) The method of claim 2, wherein said ~~routing~~header comprises a segments left field, a first destination address field and a last

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destination address field, and said classifying is based on information within said last destination address field of said ~~routing~~ header.

5.   (Currently Amended) A method of classifying Internet Protocol (IP) data to be sent from a source apparatus to a destination apparatus in a packet switched network, said method comprising:

receiving said data at a first node<u>, the data comprising a header comprising a list of at least one intermediate node to be visited on a way to the destination apparatus</u>; and

classifying said data at said first node based on ~~source routing information of said data~~ <u>an entry in said header</u>; and wherein said ~~source routing information~~ <u>entry</u> is provided within one of LSRR and SSRR of said data for IPv4.

6. (Original) The method of claim 5, wherein said classifying is based on a destination address provided within said one of LSRR and SSRR of said data for IPv4.

7. (Original) The method of claim 5, wherein said one of LSRR and SSRR of said data for Ipv4 comprises a first destination address field and a last destination address field, and said classifying is based on information within said last destination address field of said one of LSRR and SSRR of said data for Ipv4.

8.   (Original) The method of claim 1, wherein said data is received at said

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first node from said source apparatus.

9. (Original) The method of claim 1, further comprising reserving resources of nodes from said source apparatus to said destination apparatus.

10. (Previously Presented) The method of claim 9, wherein reserving said resources comprises forwarding a request from said source apparatus to said first node.

11. (Previously Presented) The method of claim 1, comprising storing said source routing information at said first node.

12. (Currently Amended) The method of claim 1, further comprising:
　　　　forwarding said data from said first node to a second node; and
　　　　classifying said data at said second node based on ~~source routing information of said data~~said entry in said header.

13. (Currently Amended) A router for use in a packet switched network for transmission of Internet Protocol (IP) data to be sent from a source apparatus to a destination apparatus, said router comprising:
　　　　means for receiving said IP data at a first node, the data comprising a header comprising a list of at least one intermediate node to be visited on a way to the destination apparatus; and
　　　　means for classifying said IP data at said first node based on ~~source~~

~~routing information of said data contained in a routing header~~ an entry in said header.

14. (Currently Amended) The router of claim 13, wherein said source routing information is provided within said ~~routing~~ header of said data for IPv6.

15. (Currently Amended) The router of claim 14, wherein said classifying is based on a destination address provided within said ~~routing~~ header.

16. (Currently Amended) The router of claim 14, wherein said ~~routing~~ header comprises a segments left field, a first destination address field and a last destination address field, and said means for classifying classifies said IP data based on information of said last destination address field of said ~~routing~~ header.

17. (Currently Amended) A router for use in a packet switched network for transmission of Internet Protocol (IP) data to be sent from a source apparatus to a destination apparatus, said router comprising:

means for receiving said IP data at a first node, the data comprising a header comprising a list of at least one intermediate node to be visited on a way to the destination apparatus; and

means for classifying said IP data at said first node based on ~~source routing information of said data~~ an entry in said header wherein said ~~source routing information~~ entry in said header is provided within one of LSRR and SSRR of said data for IPv4.

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18. (Original) The router of claim 17, wherein said classifying is based on a destination address provided within said one of LSRR and SSRR of said data for IPv4.

19. (Original) The router of claim 17, wherein said one of LSRR and SSRR of said data for IPv4 comprises a first destination address field and a last destination address field, and said classifying is based on information within said last destination address field of said one of LSRR and SSRR of said data for IPv4.

20. (Original) The router of claim 13, wherein said IP data is received at said means for receiving from said source apparatus.

21. (Original) The router of claim 13, wherein said means for classifying reserves resources of nodes from said source apparatus to said destination apparatus.

22. (Currently Amended) The router of claim 21, wherein reserving said resources comprising comprises forwarding a request from said source apparatus to said first node.

23. (Original) The router of claim 13, further comprising means for storing said source routing information in memory.

24. (Original) The router of claim 13, further comprising:

      means for forwarding said data from said first node to a second node.

25. (Currently Amended) A router for use in a packet switched network for transmission of Internet Protocol (IP) data to be sent from a source apparatus to a destination apparatus, said router comprising:

      a receiving device to receive said IP data at a first node, the data comprising a header comprising a list of at least one intermediate node to be visited on a way to the destination apparatus; and

      a processor device coupled to said receiving device to receive for receiving said IP data and to classify for classifying said data at said first node based on a source routing information of said data contained in a routing header an entry in said header.

26. (Currently Amended) The router of claim 25, wherein said source routing information entry is provided within said routing header of said data for IPv6.

27. (Currently Amended) The router of claim 26, wherein said classifying is based on a destination address provided within said routing header.

28. (Currently Amended) The router of claim 26, wherein said routing header comprises a segments left field, a first destination address field and a last destination address field, and said processor device classifies said IP data based on information in said last destination address field of said routing header.

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29. (Currently Amended) The router of claim 28, wherein said processor device classifies said IP data based on information in said last destination address field of said ~~routing~~ header.

30. (Currently Amended) A router for use in a packet switched network for transmission of Internet Protocol (IP) data to be sent from a source apparatus to a destination apparatus, said router comprising:

a receiving device to receive said IP data at a first node, <u>the data comprising a header comprising a list of at least one intermediate node to be visited on a way to the destination apparatus</u>; and

a processor device coupled to said receiving device to receive said IP data and to classify said data at said first node based on ~~a source routing information of said data wherein said source routing information is~~ <u>an entry in said header</u> provided within one of LSRR and SSRR of said data for IPv4.

31. (Original) The router of claim 30, wherein said classifying is based on a destination address provided within said one of LSRR and SSRR of said data for IPv4.

32. (Currently Amended) The router of claim 30, wherein 1 said one of LSRR and SSRR of said data for IPv4 comprises a first destination address field and a last destination address field, and said classifying is based on information within said last destination address field of said one of LSRR and SSRR of said data for

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IPv4.

33. (Currently Amended) The router of claim 25, wherein said data including said ~~routing~~ header is received at said first node from said source apparatus.

34. (Original) The router of claim 25, wherein said processor device reserves resources of nodes from said source apparatus to said destination apparatus.

35. (Currently Amended) The router of claim 34, wherein reserving said resources ~~comprising~~ comprises forwarding a request from said source apparatus to said first node.

36. (Currently Amended) The router of claim 25, further comprising a memory device ~~to store~~ for storing said source routing information.

37. (Currently Amended) The router of claim 25, further comprising:

a forwarding device coupled to said processor device ~~to forward~~ for forwarding said data from said first node to a second node.